

October 2024

LS200 Series Direct-Operated Regulators



Figure 1. LS200 Series Direct-Operated Regulators

Features

- **Wide Pressure Range Capability with Single Regulator** – Up to 4.14 bar / 60 psig outlet pressure.
- **Suitable for Monitoring Applications** – Pair the LS200 Series with pilot operated regulator in a monitor application for spring open and spring closed.
- **Excellent Shock Characteristics and Fast Speed of Response** – Due to two-way stabilizer vent valve, which vents the spring case more rapidly than conventional vents, lag in diaphragm and valve disk movement is minimized.
- **Suitable for Hydrogen Applications** – Contact your local sales channel or Emerson Impact Partner for more details on Hydrogen configurations.
- **Bubble-Tight Shutoff** – Single-port construction, large diaphragm area, light-rate springs along with ideal durometer disk material and seat design provide low lock-up pressures.
- **Change Elastomer Disk without Disassembling the Actuator** – Hex shaped stem allows for disk removal without holding the stem during maintenance. Eliminates the chance of damaging the diaphragms during maintenance.
- **No Seat-to-Seat Adjustment Required** – Balanced single-port design eliminates necessity for seat-to-seat adjustments to achieve bubble-tight shutoff.
- **Easy Access to Trim Parts** – Change the valve disk in 30 minutes or less. Valve seat, disk and cage easily removed with body remaining in line and without disassembly of actuator portion. Disk is accessible from bottom flange.
- **Reusable Pressure Seals** – O-rings used for pressure seals, unlike gaskets, are not ordinarily damaged by disassembling the regulator.
- **Resistance to Piping Stresses** – Steel constructions are available to help resist pipe stresses.

Outside North America Only

LS200 Series

Specifications

The Specifications section lists the specifications for the LS200 Series direct-operated regulators. Factory specification is stamped on the nameplate fastened on the regulator at the factory.

Actuator Sizes

Types LS200 and LS204 (475 mm / 18.7 in.):

Low pressure construction for outlet pressure range of 17.2 to 138 mbar / 0.25 to 2 psig. Maximum operating inlet pressure of 6.2 bar / 90 psig. Outlet pressure range of 138 to 340 mbar / 2 to 5 psig has a maximum operating inlet up to 8.6 bar / 125 psig. The maximum emergency inlet pressure rating is 19.7 bar / 285 psig at 38°C / 100°F⁽¹⁾.

Types LS220 and LS224 (350 mm / 13.8 in.):

Medium pressure construction for outlet pressure range of 0.3 to 0.69 bar / 4.35 to 10 psig. Maximum operating inlet pressure of 8.61 bar / 125 psig. Medium Pressure for outlet range of 0.69 to 1.5 bar / 10 to 21.75 psig has a maximum operating inlet up to 19.7 bar / 285 psig. The maximum emergency inlet pressure rating is 19.7 bar / 285 psig at 38°C / 100°F⁽¹⁾.

Types LS250 and LS254 (255 mm / 10.0 in.):

High pressure construction for outlet pressure range of 1.38 to 4.14 bar / 20 to 60 psig. The maximum operating inlet pressure is 19.7 bar / 285 psig with a maximum emergency inlet pressure of 19.7 bar / 285 psig at 38°C / 100°F⁽¹⁾.

Outlet Pressure Ranges⁽¹⁾

See Table 2

Pressure Ratings⁽¹⁾

See Table 3

Maximum Outlet Pressure⁽¹⁾

See Table 3

Wide Open Flow Coefficients

See Table 4

Certifications

DVGW [EN334, EN14382]

Pressure Equipment Directive (PED)

Up to 25% Hydrogen Blend (Pending 100%)

Turndown Ratio:

1000:1

Pressure Registration

External; downstream control line is required

Temperature Capabilities⁽¹⁾⁽²⁾

-29 to 66°C / -20 to 150°F

-20 to 66°C / -4 to 150°F for PED

Lockup and Function Tested to -40°C / -40°F

Control Line Connection

Without Slam-Shut: 1/2 NPT (internal); connection will be positioned directly over body outlet (standard position) or 90 degrees right or left of standard position if specified.

With Slam-Shut: 1/2 NPT (internal) connection right or left directly over slam-shut. Can be selected or changed after shipment.

VSX8 Series Slam-Shut Controller:

1/4 NPT connection

Vent Connection

3/4 NPT (internal) vent assembly.

Approximate Weight

Body

NPT: 12 kg / 26.5 lbs

2x2: 13.5 kg / 30.4 lbs

2x4: 17.55 kg / 38.7 lbs

Slam-Shut Device: 7.45 kg / 16.4 lbs

Types LS200 and LS204 Actuator:

39 kg / 86 lbs (Eye nuts included)

Types LS220 and LS224 Actuator:

27.7 kg / 61.1 lbs (Eye nuts included)

Types LS250 and LS254 Actuator:

20.35 kg / 44.9 lbs (Eye nuts included)

Construction Materials

Body: Gray iron, Ductile iron and WCC Steel

Bonnet (top/bottom flanges): Carbon steel (LF2)

Cage: 1.4308 Stainless steel

Stem: S17400 H1075

Orifice: 304 Stainless steel

Disk: Nitrile (NBR) Inside Steel Retainer

Actuator: S355ML Structural steel

Elastomers: Nitrile (NBR)

Diaphragm: Nylon-reinforced Nitrile (NBR)

Outside North America Only

1. The pressure/temperature limits in this Bulletin or any applicable standard limitation should not be exceeded.
2. Using optional restriction collar.

Table 1. Available Configurations

| TYPE NUMBER | | | | OPTION | | | |
|---|---|---|--|---|--|--|--|
| L | S | 2 | | | | | |
| | | | | PRESSURE CONSTRUCTION | | | |
| 0 | | | | Low Pressure Applications (Outlet Pressure: 17 to 340 mbar / 0.25 to 5 psig) | | | |
| 2 | | | | Medium Pressure Applications (Outlet Pressure: 0.3 to 1.5 bar / 4.35 to 21.75 psig) | | | |
| 5 | | | | High Pressure Applications (Outlet Pressure: 1.38 to 4.14 bar / 20 to 60 psig) | | | |
| | | | | OVERPRESSURE PROTECTION | | | |
| 0 | | | | Without Overpressure Protection Module | | | |
| 4 | | | | With Slam-shut Module ⁽¹⁾ | | | |
| Example: Type number LS224E: LS200 Series regulator constructed for medium pressure applications, with Type VSX4 slam-shut module and external pressure registration. 1. Reference Instruction Manual D103127X012 for VSX8 Series safety slam-shut module. | | | | | | | |

Table 2. LS200 Series Outlet Pressure Ranges, Control Springs

| ACTUATOR DIAMETER SIZE mm / IN. | OUTLET PRESSURE RANGE | | Part Number | CONTROL SPRING | | Color |
|-------------------------------------|-----------------------|--------------|-------------|----------------|-------|-------------|
| | bar | psig | | Wire Diameter | | |
| | | | | mm | In. | |
| Type LS200 and LS204 475 / 18.7 | 0.017 to 0.022 | 0.25 to 0.32 | ERAA07279A0 | 4.83 | 0.19 | Light Blue |
| | 0.02 to 0.05 | 0.30 to 0.70 | ERAA07575A0 | 6.35 | 0.25 | Yellow |
| | 0.04 to 0.09 | 0.60 to 1.28 | ERAA07577A0 | 6.35 | 0.25 | Brown |
| | 0.08 to 0.15 | 1.10 to 2.24 | ERAA07585A0 | 7.92 | 0.312 | Dark Grey |
| | 0.14 to 0.35 | 2.00 to 5.00 | ERAA07589A0 | 10.3 | 0.406 | Pink |
| Type LS220 and LS224 350 / 13.8 | 0.30 to 0.35 | 4.35 to 5.1 | ERAA07586A0 | 8.5 | 0.312 | Light Green |
| | 0.30 to 0.73 | 4.35 to 10.6 | ERAA07589A0 | 10.5 | 0.406 | Pink |
| | 0.33 to 1.08 | 4.8 to 15.7 | ERAA07592A0 | 12 | 0.438 | Dark Blue |
| | 0.57 to 1.5 | 8.3 to 21.75 | ERAA07283A0 | 12.5 | 0.5 | Orange |
| Types LS250 and LS254 255 / 10.0 | 1.38 to 2.09 | 20 to 30.3 | ERAA07589A0 | 10.5 | 0.406 | Pink |
| | 1.38 to 3.09 | 20 to 44.8 | ERAA07592A0 | 12 | 0.438 | Dark Blue |
| | 1.72 to 4.14 | 25 to 60 | ERAA07283A0 | 12.5 | 0.5 | Orange |

Table 3. Maximum Inlet and Outlet Pressures

| PRESSURE | TYPE LS200 | | TYPE LS220 | | TYPE LS250 | | TYPE 133HP | | |
|--|---|---------------------|--------------------|--------------------|------------|------|------------|------|-----|
| | bar | psig | bar | psig | bar | psig | bar | psig | |
| Maximum Operating Inlet Pressure | 17 to 138 mbar / 0.25 to 2 psig maximum outlet pressure | 6.2 | 90 | 8.6 | 125 | 19.7 | 285 | 10.3 | 150 |
| | 138 to 345 mbar / 2 to 5 psig maximum outlet pressure | 8.6 | 125 | | | | | | |
| | <0.69 bar / 10 psig maximum outlet pressure | N/A | N/A | 19.7 | 285 | | | | |
| | >0.69 bar / 10 psig maximum outlet pressure | N/A | N/A | | | | | | |
| Maximum Emergency Inlet Pressure | 19.7 | 285 | | | | | | | |
| Maximum Operating Outlet Pressure ⁽¹⁾ | 0.34 | 5.0 | 1.5 | 22 | 4.1 | 60 | 4.1 | 60 | |
| Maximum Outlet Pressure Over Outlet Pressure | 0.8 | 11.6 | 2.0 | 29 | 5.8 | 84 | 6.9 | 100 | |
| Maximum Emergency Outlet (Casing) Pressure | 5.6 ⁽²⁾ | 66.0 ⁽²⁾ | 7.9 ⁽³⁾ | 115 ⁽³⁾ | 10.3 | 150 | 10.3 | 150 | |

1. With highest spring range available only.
 2. 35 psi / 2.41 bar per PED.
 3. 50 psi / 3.45 bar per PED.

Table 4. Wide Open Flow Coefficients

| UNIT INFORMATION | | | FLOW COEFFICIENTS | | |
|------------------|------|---------------------------------|-------------------|----------------|----------------|
| Regulator | Body | Type | C _g | C ₁ | C _v |
| LS200 Series | 2x2 | LS200, LS220 and LS250 | 2083 | 33 | 72 |
| | 2x4 | | 2461 | 29 | 74 |
| | 2x2 | LS204, LS224 and LS254 with SSD | 2001 | 28 | 71 |
| | 2x4 | | 2304 | 34 | 67 |

Note: Multiply restricted trim % value by the C_g for the restricted C_g value.

LS200 Series

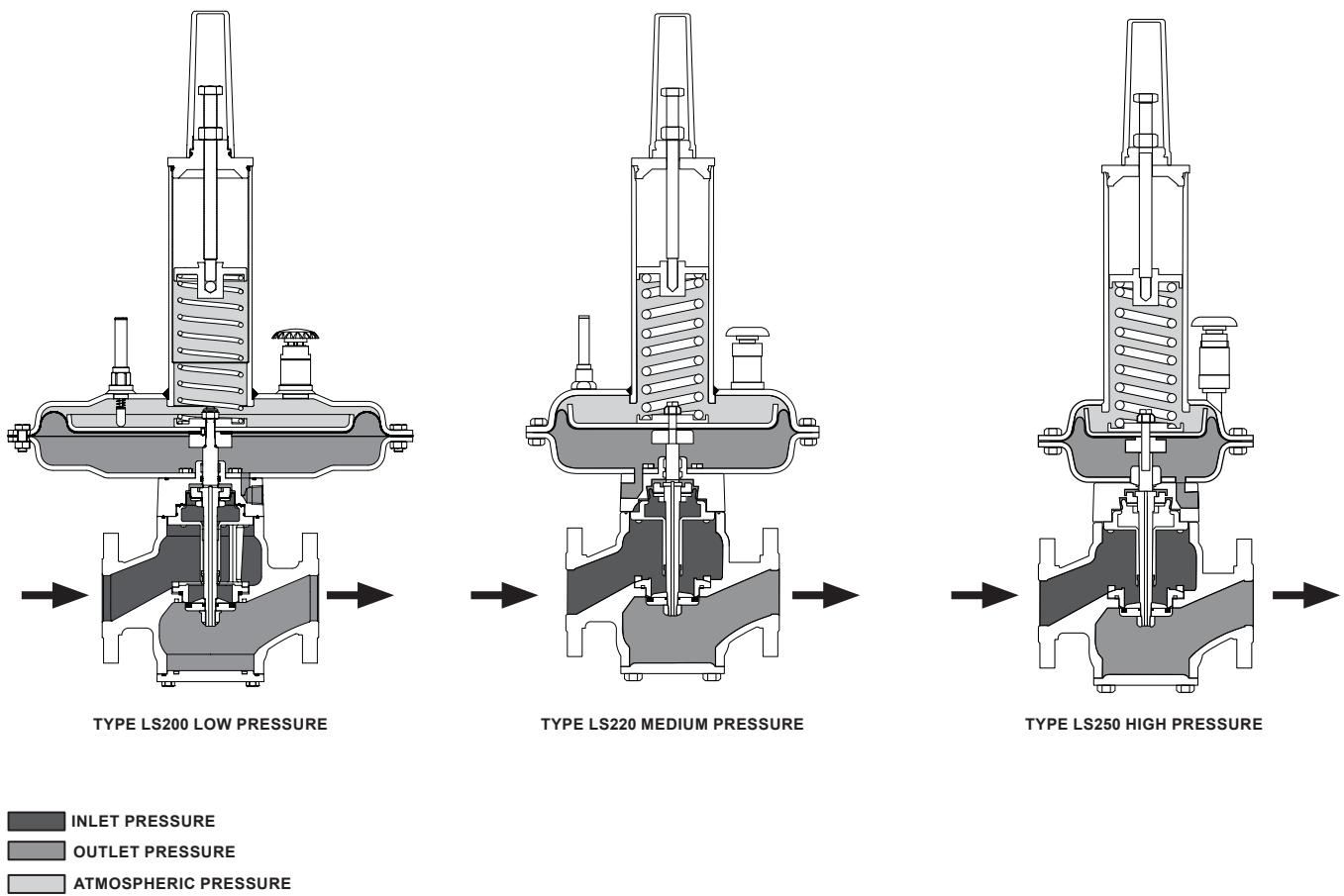


Figure 2. LS200 Series Regulator Operational Schematic

Introduction

Description

The LS200 Series direct-operated gas regulators are primarily designed for low pressure natural gas distribution systems, industrial and commercial applications supplying gas to furnaces, burners and other appliances. The LS200 Series balanced port design enables the regulator to provide accurate control of gas pressure for maximum combustion efficiency despite varying inlet pressure conditions. The single port construction provides bubble-tight shutoff. An external downstream control line is required for the operation of the regulator. Refer to Table 2 for outlet pressure ranges of each type. LS200 Series regulators are available in a DN 50 / 2 in. body size with either NPT or flanged end connections.

An optional restriction collar can be installed if wide-open capacity is too high for applications using a relief valve as overpressure protection. The collar reduces wide-open capacity to 40%, 60% or 78% of wide open capacity. 78% is sized for replacing the legacy Type 133HP 100% units without needing to resize the relief valve.

Principle of Operation

In the LS200 Series, downstream pressure is registered under the diaphragm via the external control line and is used as the operating medium. Increased demand lowers the downstream pressure and allows the spring to move the diaphragm and stem assembly down, opening the valve disk and supplying more gas to the downstream system. Decreased demand increases the downstream pressure and moves the diaphragm and stem assembly up, closing the valve disk and decreasing the gas supply to the downstream system.

Boosting System

The LS200 Series incorporates a balancing diaphragm and a boosting system. When the regulator is locked up, inlet pressure is registered on the top of the valve disk and on the bottom of the balancing diaphragm through space between the stem and cage. Also, downstream pressure is registered on the bottom of the valve disk and on the top of the balancing diaphragm through a passage in the stem.

When the trim is open, gas flows from the inlet over the edge of the disk to the outlet. Under the disk, there is little gas flow. The gas pressure is higher than it is in the flow path where gas velocity tends to lower the pressure. The higher pressure near the disk is registered on the top of the balancing diaphragm through the space between the stem and the stem sleeve.

This pressure registered on the top of the balancing diaphragm aids downward disk travel and compensates for spring and diaphragm effect. This improves regulator rangeability and performance.

Installation

The regulator may be installed with actuator above or below the body but is normally installed with the actuator portion above the body portion. Flow through the body must be in the direction indicated by the flow direction arrow cast on the body portion. A downstream control line is required for operation of the regulator.

A remote vent line may be required for some installations. Vent openings must be protected against the entrance of rain, snow, insects or any other foreign material that may plug the vent.

External dimensions are shown in Figure 3.

Integrated Slam-shut

The LS200 Series is offered with an integral slam-shut device that will stop gas from flowing if an over pressure or under pressure condition occurs.

The slam-shut design is industry leading with only design allowing the choice of side of the body to install the slam-shut. This allows the slam-shut to always be on the outside of a parallel run or facing out if against a wall. Rearming, maintenance and testing is safe with enough room to work.

The slam-shut measuring element utilizes the VSX8 Series controller (see VSX8 Series literature, D103127X012 for more details and support). The VSX8 Series uses a positive latching mechanism instead of a ball bearing design which reduces false trips related to vibration or external factors. See Figure 3 for more information.

Overpressure Protection

As is the case with most regulators, the LS200 Series regulators have outlet pressure ratings that are lower than the inlet pressure ratings. Some type of Overpressure Protection is needed if the actual inlet pressure ever exceeds the outlet pressure rating.

Maximum inlet and outlet pressures for the LS200 Series are given in Table 3. All models must be protected against inlet pressure above the maximum emergency inlet pressure (refer to Table 3).

Capacity Data

Flow capacities for various inlet pressures and outlet pressure settings are shown in Tables 5 to 20. Capacities are in thousands of Nm³/hr and SCFH at 60°F and 14.7 psia and in Nm³/hr at 0°C and 1.01325 bar of 0.6 specific gravity gas. To convert to equivalent capacities of other gases, multiply the SCFH values shown by the appropriate factor: air– 0.775; propane–0.628; butane–0.548; nitrogen–0.789. For gases of other specific gravities, multiply the given capacity by 0.775 and divide by the square root of the appropriate specific gravity. Then, if capacity is desired in Nm³/h at 0°C and 1.01325 bar, multiply SCFH by 0.0268.

Note

For optimum performance, select the lowest spring range that includes the desired outlet pressure setting.

For restricted-capacity constructions, determine flow capacities for outlet pressure settings of 0.14 bar / 2 psig or less by multiplying the values from Tables 5 to 20 by 40%, 60% or 78% (depending upon which restriction collar is selected). If flow capacities for inlet pressures lower than those shown are required, contact your local Sales Office. The representative regulating C_g of 2000 may be used for regulator sizing of full capacity constructions only if capacity table data is not available. The representative regulating C_g is an approximation only for pressure drops greater than 0.34 bar / 5 psig, because, at a given offset in controlled pressure, the regulating C_g varies with the spring being used with the pressure drop across the valve. To determine capacity using the flow coefficient C_g, use the appropriate procedure below.

Critical Pressure Drops

For critical pressure drops (absolute outlet pressure equal to or less than one-half of absolute inlet pressure), use the following formula:

$$Q = (P_1)(C_g)(1.29)$$

Non-Critical Pressure Drops

For pressure drops lower than critical (absolute outlet pressure greater than one-half of absolute inlet pressure).

$$Q = \sqrt{\frac{520}{GT}} C_g P_1 \text{SIN} \left(\frac{3417}{C_1} \sqrt{\frac{\Delta P}{P_1}} \right) \text{DEG}$$

where,

- Q = gas flow rate, SCFH
- P₁ = absolute inlet pressure, psia (P₁ gauge + 14.7)
- C_g = regulating or wide-open gas sizing coefficient
- G = specific gravity of the gas
- T = absolute temperature of gas at inlet, °Rankine
- C₁ = flow coefficient
- ΔP = pressure drop across the regulator, psig

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Table 5. Industrial Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in Nm³/hr at AC5 Accuracy

| OUTLET PRESSURE, barg | INDUSTRIAL FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR DN 50 X 50 | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|-----|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|--------|
| | INLET PRESSURE, barg | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 121 | 303 | 396 | 425 | 601 | 655 | 770 | 805 | 1022 | 875 | 901 | 1284 | 1445 | 1626 | 2150 | 1931 | 1561 | 1528 | | | | | |
| 0.03 | 140 | 213 | 289 | 367 | 527 | 587 | 691 | 818 | 714 | 908 | 1007 | 1204 | 1550 | 1905 | 1978 | 2222 | 2661 | 2083 | | | | | |
| 0.05 | | 211 | 389 | 391 | 572 | 615 | 800 | 724 | 985 | 987 | 1123 | 1513 | 1646 | 2032 | 2737 | 2426 | 2686 | 2361 | | | | | |
| 0.08 | | 202 | 313 | 386 | 433 | 728 | 867 | 858 | 1025 | 1189 | 1277 | 1418 | 1541 | 2352 | 2971 | 2895 | 2984 | 3094 | | | | | |
| 0.1 | | | 298 | 311 | 583 | 700 | 649 | 706 | 812 | 834 | 924 | 1431 | 1597 | 1709 | 2411 | 2908 | 2878 | 2918 | | | | | |
| 0.15 | | | | | 595 | 689 | 799 | 942 | 1030 | 1140 | 1373 | 1555 | 1834 | 2233 | 2969 | 3564 | 3695 | 4448 | 4938 | | | | |
| 0.3 | | | | | | | | | 903 | 938 | 1157 | 1265 | 1636 | 2512 | 3299 | 3330 | 3909 | 4377 | 5089 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 923 | 1070 | 1286 | 1226 | 1515 | 2605 | 3823 | 4870 | 5947 | 6173 | 5805 | | | | |
| 0.5 | | | | | | | | 462 | 589 | 725 | 835 | 1002 | 1269 | 1982 | 2662 | 4219 | 5522 | 6626 | | | | | |
| 0.75 | | | | | | | | | | 1051 | 1269 | | 1390 | 2107 | 3483 | 4559 | 5975 | 7362 | 9203 | 10,052 | 11,893 | 6400 | |
| 1 | | | | | | | | | | | | | 1167 | 1733 | 2597 | 3568 | 4757 | 5947 | 6683 | 9288 | 10,307 | 13,847 | 13,847 |
| 1.5 | | | | | | | | | | | | | | 1235 | 2282 | 3370 | 4219 | 5437 | 6173 | 8976 | 9713 | 14,470 | 17,047 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | 1144 | 1931 | 2407 | 3002 | 3823 | 4248 | 5862 | 6626 | 8212 | 7985 |
| 2 | | | | | | | | | | | | | | | 790 | 1124 | 1286 | 1846 | 2104 | 3087 | 3625 | 3964 | 4276 |
| 3 | | | | | | | | | | | | | | | | 1988 | 2701 | 3171 | 3823 | 5380 | 6315 | 7787 | 9146 |
| 4 | | | | | | | | | | | | | | | | | 2268 | 3285 | 3851 | 5890 | 7079 | 9005 | 10,675 |

Table 6. Industrial Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in SCFH at AC5 Accuracy

| OUTLET PRESSURE, psig | INDUSTRIAL FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR 2 X 2 IN. | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 | |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 4.26 | 10.7 | 14.0 | 15.0 | 21.2 | 23.1 | 27.2 | 28.5 | 36.1 | 30.9 | 31.8 | 45.4 | 51.1 | 57.4 | 76.0 | 68.2 | 55.1 | 54.0 | | | | | | |
| 0.44 | 4.93 | 7.53 | 10.2 | 13.0 | 18.6 | 20.7 | 24.4 | 28.9 | 25.2 | 32.1 | 35.6 | 42.5 | 54.8 | 67.3 | 69.9 | 78.5 | 94.0 | 73.6 | | | | | | |
| 0.73 | | 7.44 | 13.7 | 13.8 | 20.2 | 21.7 | 28.3 | 25.6 | 34.8 | 34.9 | 39.7 | 53.5 | 58.2 | 71.8 | 96.7 | 85.7 | 94.9 | 83.4 | | | | | | |
| 1.16 | | 7.15 | 11.1 | 13.6 | 15.3 | 25.7 | 30.7 | 30.3 | 36.2 | 42.0 | 45.1 | 50.1 | 54.5 | 83.1 | 105 | 102 | 105 | 109 | | | | | | |
| 1.45 | | | 10.5 | 11.0 | 20.6 | 24.8 | 22.9 | 24.9 | 28.7 | 29.5 | 32.6 | 50.6 | 56.4 | 60.4 | 85.2 | 103 | 102 | 103 | | | | | | |
| 2.18 | | | | | 21.0 | 24.4 | 28.2 | 33.3 | 36.4 | 40.3 | 48.5 | 54.9 | 64.8 | 78.9 | 105 | 126 | 131 | 157 | 175 | | | | | |
| 4.35 | | | | | | | | | 31.9 | 33.1 | 40.9 | 44.7 | 57.8 | 88.8 | 117 | 118 | 138 | 155 | 180 | | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 32.6 | 37.8 | 45.4 | 43.3 | 53.5 | 92 | 135 | 172 | 210 | 218 | 205 | | | | | |
| 7 | | | | | | | | | 16.3 | 20.8 | 25.6 | 29.5 | 35.4 | 44.8 | 70 | 94 | 149 | 195 | 234 | | | | | |
| 11 | | | | | | | | | | | 37.1 | 44.8 | | 49.1 | 74.4 | 123 | 161 | 211 | 260 | 325 | 355 | 420 | 226 | |
| 14.5 | | | | | | | | | | | | | | 41.2 | 61.2 | 91.7 | 126 | 168 | 210 | 236 | 328 | 364 | 489 | 489 |
| 22 | | | | | | | | | | | | | | | 43.6 | 80.6 | 119 | 149 | 192 | 218 | 317 | 343 | 511 | 602 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | 40.4 | 68.2 | 85 | 106 | 135 | 150 | 207 | 234 | 290 | 282 |
| 29 | | | | | | | | | | | | | | | | 27.9 | 39.7 | 45.4 | 65.2 | 74.3 | 109 | 128 | 140 | 151 |
| 44 | | | | | | | | | | | | | | | | | 70.2 | 95.4 | 112 | 135 | 190 | 223 | 275 | 323 |
| 58 | | | | | | | | | | | | | | | | | | 80.1 | 116 | 136 | 208 | 250 | 318 | 377 |

Table 7. Industrial Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in Nm³/hr at AC10 Accuracy

| OUTLET PRESSURE, barg | INDUSTRIAL FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR DN 50 X 50 | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|-----|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|--------|--------|--------|--------|
| | INLET PRESSURE, barg | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 | |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 150 | 480 | 564 | 617 | 805 | 908 | 1085 | 1128 | 1277 | 1452 | 1614 | 1756 | 2020 | 2149 | 2749 | 2599 | 3889 | 3291 | | | | | | |
| 0.03 | 322 | 311 | 422 | 523 | 687 | 801 | 960 | 1009 | 1063 | 1154 | 1481 | 1713 | 1834 | 2215 | 2578 | 2905 | 3369 | 3047 | | | | | | |
| 0.05 | | 366 | 532 | 647 | 867 | 1007 | 1112 | 1337 | 1427 | 1608 | 1764 | 2124 | 2376 | 2833 | 3559 | 3872 | 4602 | 4353 | | | | | | |
| 0.08 | | 286 | 456 | 618 | 873 | 977 | 1116 | 1305 | 1426 | 1572 | 1841 | 2098 | 2341 | 2809 | 3736 | 4519 | 4809 | 5986 | | | | | | |
| 0.1 | | | 371 | 496 | 707 | 1043 | 1169 | 1190 | 1289 | 1147 | 1678 | 1985 | 2228 | 2598 | 3384 | 3974 | 4443 | 5167 | | | | | | |
| 0.15 | | | | | 694 | 908 | 1113 | 1247 | 1384 | 1542 | 1811 | 2056 | 2340 | 2737 | 3499 | 4599 | 4648 | 5797 | 6290 | | | | | |
| 0.3 | | | | | | | | | 1296 | 1364 | 1635 | 1962 | 2235 | 2762 | 4266 | 4389 | 5511 | 5956 | 7137 | | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 1427 | 1606 | 1770 | 2277 | 2532 | 3228 | 3879 | 4984 | 6201 | 6853 | 8269 | | | | | |
| 0.5 | | | | | | | | | 1107 | 1427 | 1586 | 2073 | 2517 | 3058 | 3483 | 4531 | 5522 | 5890 | 7221 | | | | | |
| 0.75 | | | | | | | | | | | 1529 | 1937 | | 2973 | 4106 | 4814 | 6315 | 6315 | 7561 | 9826 | 11,610 | 11,893 | 12,063 | |
| 1 | | | | | | | | | | | | | 2144 | 2806 | 4021 | 5097 | 6145 | 7249 | 7985 | 10336 | 11,440 | 13,847 | 13,847 | |
| 1.5 | | | | | | | | | | | | | | 2475 | 3993 | 4786 | 5663 | 6824 | 7702 | 9968 | 10,817 | 16,339 | 17,047 | |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | | 2299 | 3455 | 4361 | 5125 | 6003 | 6654 | 8070 | 9175 | 11,015 | 12,828 |
| 2 | | | | | | | | | | | | | | | | 2667 | 3455 | 4106 | 5040 | 5522 | 7334 | 8353 | 9684 | 10,902 |
| 3 | | | | | | | | | | | | | | | | | 4304 | 5550 | 6258 | 7419 | 9968 | 11,157 | 13,196 | 14,980 |
| 4 | | | | | | | | | | | | | | | | | | 5012 | 6541 | 7561 | 10,732 | 12,544 | 14,895 | 17,556 |

Outside North America Only

LS200 Series

Table 8. Industrial Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in SCFH at AC10 Accuracy

| OUTLET PRESSURE, psig | INDUSTRIAL FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR 2 X 2 IN. | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 5.29 | 16.9 | 19.9 | 21.8 | 28.4 | 32.1 | 38.3 | 39.9 | 45.1 | 51.3 | 57.0 | 62.0 | 71.4 | 75.9 | 97.1 | 91.8 | 137 | 116 | | | | | |
| 0.44 | 11.4 | 11.0 | 14.9 | 18.5 | 24.3 | 28.3 | 33.9 | 35.6 | 37.5 | 40.8 | 52.3 | 60.5 | 64.8 | 78.3 | 91.1 | 103 | 119 | 108 | | | | | |
| 0.73 | | 12.9 | 18.8 | 22.9 | 30.7 | 35.6 | 39.3 | 47.2 | 50.4 | 56.8 | 62.3 | 75.1 | 84.0 | 100 | 126 | 137 | 163 | 154 | | | | | |
| 1.16 | | 10.1 | 16.1 | 21.8 | 30.8 | 34.5 | 39.5 | 46.1 | 50.4 | 55.6 | 65.0 | 74.1 | 82.7 | 99.2 | 132 | 160 | 170 | 212 | | | | | |
| 1.45 | | | 13.1 | 17.5 | 25.0 | 36.8 | 41.3 | 42.1 | 45.5 | 40.5 | 59.3 | 70.1 | 78.7 | 91.8 | 120 | 140 | 157 | 183 | | | | | |
| 2.18 | | | | | 24.5 | 32.1 | 39.3 | 44.1 | 48.9 | 54.5 | 64.0 | 72.7 | 82.7 | 96.7 | 124 | 162 | 164 | 205 | 222 | | | | |
| 4.35 | | | | | | | | | 45.8 | 48.2 | 57.8 | 69.3 | 79.0 | 97.6 | 151 | 155 | 195 | 210 | 252 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 50.4 | 56.7 | 62.5 | 80.4 | 89.4 | 114 | 137 | 176 | 219 | 242 | 292 | | | | |
| 7 | | | | | | | | | 39.1 | 50.4 | 56 | 73.2 | 88.9 | 108 | 123 | 160 | 195 | 208 | 255 | | | | |
| 11 | | | | | | | | | | | 54 | 68.4 | 99.8 | 105 | 145 | 170 | 223 | 223 | 267 | 347 | 410 | 420 | 426 |
| 14.5 | | | | | | | | | | | | | 75.7 | 99.1 | 142 | 180 | 217 | 256 | 282 | 365 | 404 | 489 | 489 |
| 22 | | | | | | | | | | | | | | 87.4 | 141 | 169 | 200 | 241 | 272 | 352 | 382 | 577 | 602 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | 81.2 | 122 | 154 | 181 | 212 | 235 | 285 | 324 | 389 | 453 |
| 29 | | | | | | | | | | | | | | | 94.2 | 122 | 145 | 178 | 195 | 259 | 295 | 342 | 385 |
| 44 | | | | | | | | | | | | | | | | 152 | 196 | 221 | 262 | 352 | 394 | 466 | 529 |
| 58 | | | | | | | | | | | | | | | | | 177 | 231 | 267 | 379 | 443 | 526 | 620 |

Table 9. Industrial Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in Nm³/hr at AC5 Accuracy

| OUTLET PRESSURE, bar | INDUSTRIAL FLOW CAPACITIES IN Nm³/hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR DN 50 X 100 | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|-----|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|--------|
| | INLET PRESSURE, bar | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 177 | 432 | 564 | 603 | 862 | 922 | 1085 | 1158 | 1441 | 1237 | 1283 | 1824 | 2067 | 2317 | 1759 | 2839 | 2207 | 2723 | | | | | |
| 0.03 | 201 | 302 | 407 | 525 | 749 | 831 | 992 | 1156 | 1023 | 1283 | 1423 | 1696 | 2211 | 2705 | 2909 | 3177 | 3902 | 3049 | | | | | |
| 0.05 | | 300 | 554 | 549 | 817 | 876 | 1148 | 1014 | 1410 | 1383 | 1573 | 2152 | 2356 | 2870 | 3966 | 3411 | 3817 | 3407 | | | | | |
| 0.08 | | 284 | 439 | 547 | 622 | 1036 | 1247 | 1231 | 1475 | 1669 | 179 | 2022 | 2202 | 3352 | 4335 | 4133 | 4393 | 4389 | | | | | |
| 0.1 | | | 419 | 438 | 823 | 1000 | 908 | 995 | 1167 | 1186 | 1308 | 2056 | 2267 | 2441 | 3386 | 4300 | 4125 | 4256 | | | | | |
| 0.15 | | | | | 840 | 967 | 1133 | 1331 | 1445 | 1622 | 1945 | 2182 | 2637 | 3162 | 4242 | 5064 | 5424 | 6272 | 7278 | | | | |
| 0.3 | | | | | | | | | 972 | 1322 | 1633 | 1810 | 2339 | 3600 | 4641 | 5137 | 5499 | 6206 | 7288 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 1008 | 1169 | 1405 | 1339 | 1642 | 2860 | 4191 | 5324 | 6485 | 6739 | 6343 | | | | |
| 0.5 | | | | | | | | | 507 | 643 | 793 | 912 | 1096 | 1388 | 2169 | 2888 | 4616 | 6031 | 7249 | | | | |
| 0.75 | | | | | | | | | | | 1147 | 1388 | 1521 | 2305 | 3794 | 4984 | 6513 | 6513 | 8042 | 10,052 | 10,987 | 12,997 | 6994 |
| 1 | | | | | | | | | | | | | 1274 | 1894 | 2832 | 3908 | 5182 | 6485 | 7306 | 10,137 | 11,270 | 15,150 | 15,121 |
| 1.5 | | | | | | | | | | | | | | 1348 | 2495 | 3681 | 4616 | 5918 | 6739 | 9798 | 10,619 | 15,801 | 18,604 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | 1249 | 2110 | 2631 | 3256 | 4191 | 4644 | 6400 | 7249 | 8976 | 8750 |
| 2 | | | | | | | | | | | | | | | 864 | 1229 | 1405 | 2019 | 2299 | 3370 | 3936 | 4332 | 4672 |
| 3 | | | | | | | | | | | | | | | | 2175 | 2945 | 3455 | 4191 | 5862 | 6909 | 8495 | 9996 |
| 4 | | | | | | | | | | | | | | | | | 2479 | 3568 | 4219 | 6456 | 7730 | 9826 | 11,667 |

Table 10. Industrial Flow Full-Capacity LS200 Series DN 50 x / 100 2 x 4 in. Body in SCFH at AC5 Accuracy

| OUTLET PRESSURE, psig | INDUSTRIAL FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR 2 X 4 IN. | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 6.25 | 15.3 | 19.9 | 21.3 | 30.5 | 32.6 | 38.3 | 40.9 | 50.9 | 43.7 | 45.3 | 64.4 | 73.0 | 81.9 | 62.2 | 100.3 | 78.0 | 96.2 | | | | | |
| 0.44 | 7.11 | 10.7 | 14.4 | 18.6 | 26.5 | 29.4 | 35.1 | 40.9 | 36.1 | 45.3 | 50.3 | 59.9 | 78.1 | 95.6 | 103 | 112 | 138 | 108 | | | | | |
| 0.73 | | 10.6 | 19.6 | 19.4 | 28.9 | 31.0 | 40.6 | 35.8 | 49.8 | 48.9 | 55.6 | 76.0 | 83.3 | 101 | 140 | 121 | 135 | 120 | | | | | |
| 1.16 | | 10.0 | 15.5 | 19.3 | 22.0 | 36.6 | 44.1 | 43.5 | 52.1 | 59.0 | 6.3 | 71.4 | 77.8 | 118 | 153 | 146 | 155 | 155 | | | | | |
| 1.45 | | | 14.8 | 15.5 | 29.1 | 35.3 | 32.1 | 35.1 | 41.2 | 41.9 | 46.2 | 72.7 | 80.1 | 86.3 | 120 | 152 | 146 | 150 | | | | | |
| 2.18 | | | | | 29.7 | 34.2 | 40.0 | 47.0 | 51.0 | 57.3 | 68.7 | 77.1 | 93.2 | 112 | 150 | 179 | 192 | 222 | 257 | | | | |
| 4.35 | | | | | | | | | 34.4 | 46.7 | 57.7 | 64.0 | 82.7 | 127 | 164 | 182 | 194 | 219 | 258 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 35.6 | 41.3 | 49.6 | 47.3 | 58 | 101 | 148 | 188 | 229 | 238 | 224 | | | | |
| 7 | | | | | | | | | 17.9 | 22.7 | 28 | 32.2 | 38.7 | 49 | 77 | 102 | 163 | 213 | 256 | | | | |
| 11 | | | | | | | | | | | 40.5 | 49 | 53.7 | 81.4 | 134 | 176 | 230 | 230 | 284 | 355 | 388 | 459 | 247 |
| 14.5 | | | | | | | | | | | | | 45 | 66.9 | 100 | 138 | 183 | 229 | 258 | 358 | 398 | 535 | 534 |
| 22 | | | | | | | | | | | | | | 47.6 | 88.1 | 130 | 163 | 209 | 238 | 346 | 375 | 558 | 657 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | 44.1 | 74.5 | 92.9 | 115 | 148 | 164 | 226 | 256 | 317 | 309 |
| 29 | | | | | | | | | | | | | | | 30.5 | 43.4 | 49.6 | 71.3 | 81.2 | 119 | 139 | 153 | 165 |
| 44 | | | | | | | | | | | | | | | | 76.8 | 104 | 122 | 148 | 207 | 244 | 300 | 353 |
| 58 | | | | | | | | | | | | | | | | | 87.5 | 126 | 149 | 228 | 273 | 347 | 412 |

Outside North America Only

Table 11. Industrial Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in Nm³/hr at AC10 Accuracy

| OUTLET PRESSURE, bar | INDUSTRIAL FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR DN 50 X 100 | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|--------|
| | INLET PRESSURE, bar | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 277 | 882 | 1034 | 1126 | 1456 | 1630 | 1931 | 1991 | 2234 | 2519 | 2751 | 2927 | 3291 | 3340 | 3862 | 3505 | 5027 | 4069 | | | | | |
| 0.03 | 595 | 574 | 774 | 954 | 1247 | 1430 | 1710 | 1783 | 1850 | 2002 | 2514 | 2849 | 2982 | 3426 | 3621 | 3889 | 4347 | 3790 | | | | | |
| 0.05 | | 675 | 972 | 1182 | 1571 | 1800 | 1982 | 2352 | 2493 | 2788 | 3000 | 3533 | 3862 | 4403 | 5008 | 5185 | 5909 | 5406 | | | | | |
| 0.08 | | 525 | 831 | 1129 | 1580 | 1762 | 1983 | 2308 | 2505 | 2742 | 3120 | 3497 | 3807 | 4351 | 5246 | 6101 | 6218 | 7387 | | | | | |
| 0.1 | | | 682 | 907 | 1281 | 1871 | 2071 | 2089 | 2247 | 1988 | 2845 | 3295 | 3652 | 4032 | 4772 | 5342 | 5780 | 6382 | | | | | |
| 0.15 | | | | | 1249 | 1621 | 1975 | 2202 | 2425 | 2682 | 3071 | 3415 | 3833 | 4247 | 4917 | 6231 | 6033 | 7177 | 6605 | | | | |
| 0.3 | | | | | | | | | 1482 | 2369 | 2786 | 3269 | 3663 | 4290 | 6023 | 6026 | 7076 | 7350 | 7494 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 1518 | 1710 | 1886 | 2424 | 2696 | 3398 | 4106 | 5295 | 6598 | 7277 | 8778 | | | | |
| 0.5 | | | | | | | | | 1178 | 1518 | 1688 | 2206 | 2679 | 3256 | 3681 | 4814 | 5862 | 6286 | 7674 | | | | |
| 0.75 | | | | | | | | | | | 1628 | 2061 | 3002 | 3143 | 4361 | 5097 | 6711 | 6711 | 8042 | 10,449 | 12,346 | 12,658 | 12,856 |
| 1 | | | | | | | | | | | | | 2282 | 2973 | 4248 | 5409 | 6513 | 7702 | 8495 | 10,987 | 12,148 | 14,753 | 14,725 |
| 1.5 | | | | | | | | | | | | | | 2636 | 4219 | 5097 | 6031 | 7277 | 8212 | 10,619 | 11,525 | 17,387 | 18,123 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | 2447 | 3653 | 4644 | 5437 | 6371 | 7079 | 8580 | 9769 | 11,723 | 13,649 |
| 2 | | | | | | | | | | | | | | | 2832 | 3681 | 4361 | 5352 | 5890 | 7787 | 8891 | 10,307 | 11,610 |
| 3 | | | | | | | | | | | | | | | | 4559 | 5918 | 6654 | 7900 | 10,591 | 11,865 | 14,045 | 15,942 |
| 4 | | | | | | | | | | | | | | | | | 5324 | 6938 | 8042 | 11,412 | 13,337 | 15,829 | 18,689 |

Table 12. Industrial Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in SCFH at AC10 Accuracy

| OUTLET PRESSURE, psig | INDUSTRIAL FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR 2 X 4 | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 9.78 | 31.2 | 36.5 | 39.8 | 51.5 | 57.6 | 68.2 | 70.4 | 78.9 | 89.0 | 97.2 | 103 | 116 | 118 | 136 | 124 | 178 | 144 | | | | | |
| 0.44 | 21.0 | 20.3 | 27.4 | 33.7 | 44.1 | 50.5 | 60.4 | 63.0 | 65.4 | 70.7 | 88.8 | 101 | 105 | 121 | 128 | 137 | 154 | 134 | | | | | |
| 0.73 | | 23.9 | 34.3 | 41.8 | 55.5 | 63.6 | 70.0 | 83.1 | 88.1 | 98.5 | 106 | 125 | 136 | 156 | 177 | 183 | 209 | 191 | | | | | |
| 1.16 | | 18.6 | 29.4 | 39.9 | 55.8 | 62.3 | 70.1 | 81.6 | 88.5 | 96.9 | 110 | 124 | 135 | 154 | 185 | 216 | 220 | 261 | | | | | |
| 1.45 | | | 24.1 | 32.0 | 45.3 | 66.1 | 73.2 | 73.8 | 79.4 | 70.2 | 101 | 116 | 129 | 142 | 169 | 189 | 204 | 226 | | | | | |
| 2.18 | | | | | 44.1 | 57.3 | 69.8 | 77.8 | 85.7 | 94.8 | 109 | 121 | 135 | 150 | 174 | 220 | 213 | 254 | 233 | | | | |
| 4.35 | | | | | | | | | 52.4 | 83.7 | 98.5 | 116 | 129 | 152 | 213 | 213 | 250 | 260 | 265 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 53.6 | 60.4 | 66.6 | 85.6 | 95.2 | 120 | 145 | 187 | 233 | 257 | 310 | | | | |
| 7 | | | | | | | | | 41.6 | 53.6 | 59.6 | 77.9 | 94.6 | 115 | 130 | 170 | 207 | 222 | 271 | | | | |
| 11 | | | | | | | | | | | 57.5 | 72.8 | 106 | 111 | 154 | 180 | 237 | 237 | 284 | 369 | 436 | 447 | 454 |
| 14.5 | | | | | | | | | | | | | 80.6 | 105 | 150 | 191 | 230 | 272 | 300 | 388 | 429 | 521 | 520 |
| 22 | | | | | | | | | | | | | | 93.1 | 149 | 180 | 213 | 257 | 290 | 375 | 407 | 614 | 640 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | 86.4 | 129 | 164 | 192 | 225 | 250 | 303 | 345 | 414 | 482 |
| 29 | | | | | | | | | | | | | | | 100 | 130 | 154 | 189 | 208 | 275 | 314 | 364 | 410 |
| 44 | | | | | | | | | | | | | | | | 161 | 209 | 235 | 279 | 374 | 419 | 496 | 563 |
| 58 | | | | | | | | | | | | | | | | | 188 | 245 | 284 | 403 | 471 | 559 | 660 |

LS200 Series

Table 13. Utility Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in Nm³/hr at AC5 Accuracy

| OUTLET PRESSURE, barg | UTILITY FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR DN 50 X 50 | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|-----|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|
| | INLET PRESSURE, barg | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 92 | 287 | 382 | 399 | 595 | 639 | 770 | 750 | 934 | 811 | 856 | 1284 | 1427 | 1382 | 1886 | 1912 | 1644 | 1500 | | | | | |
| 0.03 | 109 | 175 | 260 | 341 | 369 | 575 | 606 | 683 | 655 | 738 | 895 | 1154 | 1173 | 1417 | 1855 | 2129 | 2661 | 2083 | | | | | |
| 0.05 | | 183 | 285 | 346 | 549 | 519 | 769 | 715 | 893 | 909 | 1044 | 1209 | 1405 | 1715 | 2737 | 2207 | 2177 | 2361 | | | | | |
| 0.08 | | 128 | 288 | 385 | 419 | 419 | 867 | 875 | 978 | 1003 | 1008 | 1385 | 1498 | 2018 | 2610 | 2918 | 2747 | 3094 | | | | | |
| 0.1 | | | 175 | 265 | 500 | 689 | 708 | 654 | 768 | 792 | 1036 | 1291 | 1314 | 1624 | 2419 | 2419 | 2878 | 2918 | | | | | |
| 0.15 | | | | | 514 | 689 | 807 | 942 | 1030 | 1140 | 1366 | 1536 | 1768 | 2190 | 2822 | 3301 | 3695 | 4202 | 4913 | | | | |
| 0.3 | | | | | | | | | 875 | 1168 | 1087 | 1395 | 1523 | 1830 | 3270 | 3179 | 3707 | 4191 | 4810 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 807 | 869 | 1104 | 1526 | 1979 | 2500 | 3540 | 4502 | 3087 | 2775 | 3002 | | | | |
| 0.5 | | | | | | | | | 462 | 589 | 725 | 835 | 1002 | 1269 | 1792 | 2441 | 3285 | 4474 | 5805 | | | | |
| 0.75 | | | | | | | | | | | 631 | 920 | 1390 | 1555 | 2393 | 3455 | 5125 | 5947 | 7532 | 9061 | 8297 | 12,290 | 6938 |
| 1 | | | | | | | | | | | | | 1206 | 1368 | 1764 | 2789 | 3002 | 4870 | 5493 | 9175 | 10,081 | 11,638 | 11,610 |
| 1.5 | | | | | | | | | | | | | | 1252 | 2180 | 3171 | 4021 | 5012 | 5918 | 8920 | 9543 | 13,705 | 15,659 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | 745 | 1549 | 2019 | 2464 | 3030 | 3710 | 5409 | 6343 | 6909 | 6711 |
| 2 | | | | | | | | | | | | | | | 759 | 1082 | 1235 | 1600 | 1838 | 3087 | 2699 | 3455 | 4276 |
| 3 | | | | | | | | | | | | | | | | 1937 | 2582 | 3030 | 3681 | 5267 | 6060 | 7476 | 8778 |
| 4 | | | | | | | | | | | | | | | | | 2178 | 3143 | 4078 | 5663 | 6799 | 8637 | 10,251 |

Table 14. Utility Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in SCFH at AC5 Accuracy

| OUTLET PRESSURE, psig | UTILITY FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR 2 X 2 IN. | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-------|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 3.26 | 10.2 | 13.5 | 14.1 | 21.0 | 22.6 | 27.2 | 26.5 | 33.0 | 28.7 | 30.3 | 45.4 | 50.4 | 48.8 | 66.6 | 67.6 | 58.1 | 53.0 | | | | | |
| 0.44 | 3.87 | 6.19 | 9.18 | 12.1 | 13.0 | 20.3 | 21.4 | 24.1 | 23.1 | 26.1 | 31.6 | 40.8 | 41.5 | 50.1 | 65.5 | 75.2 | 94.0 | 73.6 | | | | | |
| 0.73 | | 6.46 | 10.1 | 12.2 | 19.4 | 18.3 | 27.2 | 25.3 | 31.6 | 32.1 | 36.9 | 42.7 | 49.7 | 60.6 | 96.7 | 78.0 | 76.9 | 83.4 | | | | | |
| 1.16 | | 4.52 | 10.2 | 13.6 | 14.8 | 14.8 | 30.7 | 30.9 | 34.6 | 35.5 | 35.6 | 48.9 | 52.9 | 71.3 | 92.2 | 103 | 97.1 | 109 | | | | | |
| 1.45 | | | 6.18 | 9.38 | 17.7 | 24.4 | 25.0 | 23.1 | 27.1 | 28.0 | 36.6 | 45.6 | 46.4 | 57.4 | 85.5 | 85.5 | 102 | 103 | | | | | |
| 2.18 | | | | | 18.2 | 24.4 | 28.5 | 33.3 | 36.4 | 40.3 | 48.3 | 54.3 | 62.5 | 77.4 | 99.7 | 117 | 131 | 148 | 174 | | | | |
| 4.35 | | | | | | | | | 30.9 | 41.3 | 38.4 | 49.3 | 53.8 | 64.7 | 116 | 112 | 131 | 148 | 170 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 28.5 | 30.7 | 39 | 53.9 | 69.9 | 88.3 | 125 | 159 | 109 | 98 | 106 | | | | |
| 7 | | | | | | | | | 16.3 | 20.8 | 25.6 | 29.5 | 35.4 | 44.8 | 63.3 | 86.2 | 116 | 158 | 205 | | | | |
| 11 | | | | | | | | | | | 22.3 | 32.5 | 49.1 | 54.9 | 84.5 | 122 | 181 | 210 | 266 | 320 | 293 | 434 | 245 |
| 14.5 | | | | | | | | | | | | | 42.6 | 48.3 | 62.3 | 98.5 | 106 | 172 | 194 | 324 | 356 | 411 | 410 |
| 22 | | | | | | | | | | | | | | 44.2 | 77 | 112 | 142 | 177 | 209 | 315 | 337 | 484 | 553 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | 26.3 | 54.7 | 71.3 | 87 | 107 | 131 | 191 | 224 | 244 | 237 |
| 29 | | | | | | | | | | | | | | | 26.8 | 38.2 | 43.6 | 56.5 | 64.9 | 109 | 95.3 | 122 | 151 |
| 44 | | | | | | | | | | | | | | | | 68.4 | 91.2 | 107 | 130 | 186 | 214 | 264 | 310 |
| 58 | | | | | | | | | | | | | | | | | 76.9 | 111 | 144 | 200 | 240.1 | 305 | 362 |

Table 15. Utility Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in Nm³/hr at AC10 Accuracy

| OUTLET PRESSURE, barg | UTILITY FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR DN 50 X 50 | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|-----|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|--------|
| | INLET PRESSURE, barg | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 150 | 434 | 564 | 617 | 793 | 908 | 1085 | 1113 | 1277 | 1397 | 1586 | 1756 | 1932 | 2089 | 2783 | 2511 | 3889 | 3291 | | | | | |
| 0.03 | 159 | 235 | 380 | 512 | 636 | 788 | 836 | 886 | 1008 | 1089 | 1259 | 1667 | 1649 | 1983 | 2562 | 2791 | 3136 | 3047 | | | | | |
| 0.05 | | 347 | 527 | 636 | 825 | 996 | 1102 | 1337 | 1421 | 1559 | 1749 | 2096 | 2293 | 2733 | 3559 | 3534 | 4071 | 4353 | | | | | |
| 0.08 | | 282 | 456 | 617 | 873 | 977 | 1116 | 1305 | 1426 | 1572 | 1841 | 2098 | 2341 | 2806 | 3736 | 4377 | 4685 | 5986 | | | | | |
| 0.1 | | | 344 | 488 | 718 | 1043 | 1127 | 1161 | 1269 | 1411 | 1574 | 1932 | 2144 | 2422 | 3744 | 3885 | 4242 | 5167 | | | | | |
| 0.15 | | | | | 698 | 899 | 1112 | 1245 | 1384 | 1529 | 1805 | 2011 | 2311 | 2727 | 3487 | 4375 | 4628 | 5797 | 6290 | | | | |
| 0.3 | | | | | | | | | 1296 | 1344 | 1601 | 1925 | 2194 | 2652 | 4266 | 4366 | 5511 | 5956 | 7137 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 1362 | 1501 | 1708 | 2223 | 2432 | 3200 | 3851 | 4955 | 6201 | 6796 | 8184 | | | | |
| 0.5 | | | | | | | | | 1036 | 1317 | 1546 | 2044 | 2396 | 3030 | 3766 | 4955 | 5465 | 5833 | 7136 | | | | |
| 0.75 | | | | | | | | | | | 1436 | 1764 | 2769 | 2917 | 3964 | 4814 | 5975 | 6145 | 7532 | 9684 | 11,610 | 12,290 | 12,346 |
| 1 | | | | | | | | | | | | | 1937 | 2662 | 3766 | 4870 | 5805 | 7249 | 7787 | 10,251 | 11,327 | 13,366 | 13,762 |
| 1.5 | | | | | | | | | | | | | | 2452 | 3964 | 4616 | 5635 | 7051 | 7589 | 9883 | 10,760 | 16,877 | 17,188 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | 2291 | 3483 | 4502 | 5182 | 6003 | 6485 | 7787 | 9118 | 11,383 | 12,629 |
| 2 | | | | | | | | | | | | | | | 2537 | 3483 | 4021 | 4729 | 5352 | 7561 | 8438 | 9684 | 10,647 |
| 3 | | | | | | | | | | | | | | | | 4276 | 5522 | 6654 | 7362 | 10,052 | 10,959 | 12,374 | 14,555 |
| 4 | | | | | | | | | | | | | | | | | 4984 | 6711 | 7702 | 10,647 | 12,488 | 15,857 | 17,415 |

Outside North America Only

Table 16. Utility Flow Full-Capacity LS200 Series DN 50 x 50 / 2 x 2 in. Body in SCFH at AC10 Accuracy

| OUTLET PRESSURE, psig | UTILITY FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR 2 X 2 IN. | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 5.29 | 15.3 | 19.9 | 21.8 | 28.0 | 32.1 | 38.3 | 39.3 | 45.1 | 49.4 | 56.0 | 62.0 | 68.3 | 73.8 | 98.4 | 88.7 | 137 | 116 | | | | | |
| 0.44 | 5.61 | 8.31 | 13.4 | 18.1 | 22.5 | 27.8 | 29.5 | 31.3 | 35.6 | 38.5 | 44.5 | 58.9 | 58.3 | 70.1 | 90.5 | 98.6 | 111 | 108 | | | | | |
| 0.73 | | 12.3 | 18.6 | 22.5 | 29.1 | 35.2 | 38.9 | 47.2 | 50.2 | 55.1 | 61.8 | 74.1 | 81.0 | 96.6 | 126 | 125 | 144 | 154 | | | | | |
| 1.16 | | 9.97 | 16.1 | 21.8 | 30.8 | 34.5 | 39.5 | 46.1 | 50.4 | 55.6 | 65.0 | 74.1 | 82.7 | 99.2 | 132 | 155 | 166 | 212 | | | | | |
| 1.45 | | | 12.2 | 17.2 | 25.4 | 36.8 | 39.8 | 41.0 | 44.8 | 49.8 | 55.6 | 68.3 | 75.8 | 85.6 | 132 | 137 | 150 | 183 | | | | | |
| 2.18 | | | | | 24.7 | 31.7 | 39.3 | 44.0 | 48.9 | 54.0 | 63.8 | 71.1 | 81.7 | 96.4 | 123 | 155 | 164 | 205 | 222 | | | | |
| 4.35 | | | | | | | | | 45.8 | 47.5 | 56.6 | 68.0 | 77.5 | 93.7 | 151 | 154 | 195 | 210 | 252 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 48.1 | 53 | 60.3 | 78.5 | 85.9 | 113 | 136 | 175 | 219 | 240 | 289 | | | | |
| 7 | | | | | | | | | 36.6 | 46.5 | 54.6 | 72.2 | 84.6 | 107 | 133 | 175 | 193 | 206 | 252 | | | | |
| 11 | | | | | | | | | | | 50.7 | 62.3 | 97.8 | 103 | 140 | 170 | 211 | 217 | 266 | 342 | 410 | 434 | 436 |
| 14.5 | | | | | | | | | | | | | 68.4 | 94 | 133 | 172 | 205 | 256 | 275 | 362 | 400 | 472 | 486 |
| 22 | | | | | | | | | | | | | | 86.6 | 140 | 163 | 199 | 249 | 268 | 349 | 380 | 596 | 607 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | 80.9 | 123 | 159 | 183 | 212 | 229 | 275 | 322 | 402 | 446 |
| 29 | | | | | | | | | | | | | | | 89.6 | 123 | 142 | 167 | 189 | 267 | 298 | 342 | 376 |
| 44 | | | | | | | | | | | | | | | | 151 | 195 | 235 | 260 | 355 | 387 | 437 | 514 |
| 58 | | | | | | | | | | | | | | | | | 176 | 237 | 272 | 376 | 441 | 560 | 615 |

Table 17. Utility Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in Nm³/hr at AC5 Accuracy

| OUTLET PRESSURE, barg | UTILITY FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR DN 50 X 100 | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|-----|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|
| | INLET PRESSURE, barg | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 174 | 537 | 708 | 732 | 1071 | 1128 | 1334 | 1273 | 1555 | 1321 | 1337 | 1896 | 1984 | 1686 | 1656 | 2277 | 2471 | 2723 | | | | | |
| 0.03 | 207 | 328 | 479 | 624 | 664 | 1020 | 1057 | 1161 | 1093 | 1204 | 1397 | 1702 | 1625 | 1735 | 1634 | 2537 | 3978 | 3793 | | | | | |
| 0.05 | | 340 | 526 | 638 | 984 | 917 | 1340 | 1219 | 1490 | 1490 | 1638 | 1786 | 1945 | 2099 | 2379 | 2608 | 3292 | 4294 | | | | | |
| 0.08 | | 240 | 533 | 706 | 754 | 737 | 1511 | 1483 | 1634 | 1625 | 1579 | 2044 | 2084 | 2458 | 2307 | 3452 | 4107 | 5625 | | | | | |
| 0.1 | | | 325 | 485 | 905 | 1213 | 1222 | 1114 | 1277 | 1295 | 1626 | 1903 | 1836 | 1975 | 2102 | 2883 | 4314 | 5317 | | | | | |
| 0.15 | | | | | 929 | 1212 | 1398 | 1608 | 1710 | 1847 | 2141 | 2268 | 2468 | 2656 | 2486 | 3939 | 5572 | 7618 | 5404 | | | | |
| 0.3 | | | | | | | | | 788 | 1894 | 1705 | 2054 | 2115 | 2223 | 2888 | 5529 | 5609 | 7635 | 5291 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | 869 | 937 | 1192 | 1645 | 2138 | 2699 | 3823 | 4842 | 3313 | 3002 | 3200 | | | | |
| 0.5 | | | | | | | | | 498 | 634 | 782 | 900 | 1082 | 1368 | 1934 | 2636 | 3540 | 4814 | 6258 | | | | |
| 0.75 | | | | | | | | | | | 680 | 991 | 1501 | 1676 | 2582 | 3738 | 5522 | 6400 | 8099 | 9769 | 8920 | 13,281 | 7476 |
| 1 | | | | | | | | | | | | | 1303 | 1475 | 1903 | 3002 | 3228 | 5239 | 5918 | 9883 | 10,874 | 14,951 | 14,923 |
| 1.5 | | | | | | | | | | | | | | 1348 | 2464 | 3398 | 4332 | 5409 | 6654 | 9628 | 10,279 | 14,781 | 16,877 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | 801 | 1674 | 2178 | 2662 | 3256 | 3993 | 5833 | 6853 | 8863 | 8608 |
| 2 | | | | | | | | | | | | | | | 852 | 1215 | 1388 | 1727 | 1982 | 3313 | 2888 | 3710 | 4616 |
| 3 | | | | | | | | | | | | | | | | 2090 | 2888 | 3398 | 4106 | 5692 | 6824 | 8382 | 9854 |
| 4 | | | | | | | | | | | | | | | | | 2449 | 3511 | 4389 | 6343 | 7646 | 9713 | 11,525 |

Table 18. Utility Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in SCFH at AC5 Accuracy

| OUTLET PRESSURE, psig | UTILITY FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC5 FOR 2 X 4 IN. | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 6.16 | 19.0 | 25.0 | 25.9 | 37.8 | 39.9 | 47.2 | 45.0 | 54.9 | 46.7 | 47.2 | 67.0 | 70.1 | 59.6 | 58.5 | 80.4 | 87.3 | 96.2 | | | | | |
| 0.44 | 7.31 | 11.6 | 16.9 | 22.1 | 23.5 | 36.0 | 37.3 | 41.0 | 38.6 | 42.5 | 49.3 | 60.2 | 57.4 | 61.3 | 57.7 | 89.7 | 141 | 134 | | | | | |
| 0.73 | | 12.0 | 18.6 | 22.5 | 34.8 | 32.4 | 47.4 | 43.1 | 52.6 | 52.6 | 57.9 | 63.1 | 68.7 | 74.2 | 84.1 | 92.2 | 116 | 152 | | | | | |
| 1.16 | | 8.49 | 18.8 | 25.0 | 26.6 | 26.0 | 53.4 | 52.4 | 57.8 | 57.4 | 55.8 | 72.2 | 73.6 | 86.8 | 81.5 | 122 | 145 | 199 | | | | | |
| 1.45 | | | 11.5 | 17.1 | 32.0 | 42.9 | 43.2 | 39.4 | 45.1 | 45.8 | 57.4 | 67.3 | 64.9 | 69.8 | 74.3 | 102 | 152 | 188 | | | | | |
| 2.18 | | | | | 32.8 | 42.8 | 49.4 | 56.8 | 60.4 | 65.3 | 75.7 | 80.2 | 87.2 | 93.9 | 87.9 | 139 | 197 | 269 | 191 | | | | |
| 4.35 | | | | | | | | | 27.8 | 66.9 | 60.2 | 72.6 | 74.7 | 78.6 | 102 | 195 | 198 | 270 | 187 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 30.7 | 33.1 | 42.1 | 58.1 | 75.5 | 95.3 | 135 | 171 | 117 | 106 | 113 | | | | |
| 7 | | | | | | | | | 17.6 | 22.4 | 27.6 | 31.8 | 38.2 | 48.3 | 68.3 | 93.1 | 125 | 170 | 221 | | | | |
| 11 | | | | | | | | | | | 24 | 35 | 53 | 59.2 | 91.2 | 132 | 195 | 226 | 286 | 345 | 315 | 469 | 264 |
| 14.5 | | | | | | | | | | | | | 46 | 52.1 | 67.2 | 106 | 114 | 185 | 209 | 349 | 384 | 528 | 527 |
| 22 | | | | | | | | | | | | | | 47.6 | 87 | 120 | 153 | 191 | 235 | 340 | 363 | 522 | 596 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | 28.3 | 59.1 | 76.9 | 94 | 115 | 141 | 206 | 242 | 313 | 304 |
| 29 | | | | | | | | | | | | | | | 30.1 | 42.9 | 49 | 61 | 70 | 117 | 102 | 131 | 163 |
| 44 | | | | | | | | | | | | | | | | 73.8 | 102 | 120 | 145 | 201 | 241 | 296 | 348 |
| 58 | | | | | | | | | | | | | | | | | 86.5 | 124 | 155 | 224 | 270 | 343 | 407 |

Outside North America Only

LS200 Series

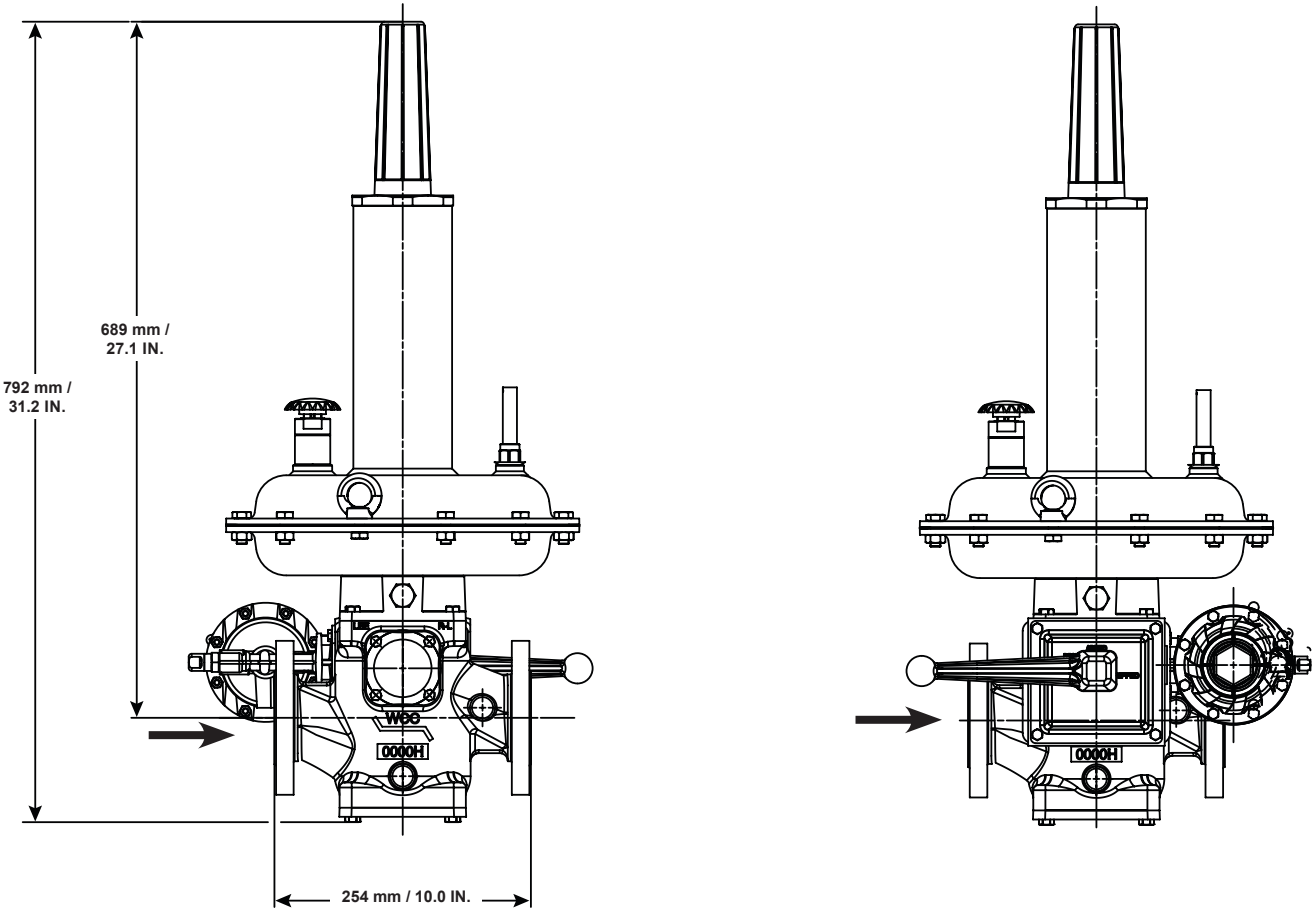
Table 19. Utility Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in Nm³/hr at AC10 Accuracy

| OUTLET PRESSURE, barg | UTILITY FLOW CAPACITIES IN Nm ³ /hr AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR DN 50 X 100 | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|--------|--------|
| | INLET PRESSURE, barg | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.05 | 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 10 | 12 | 16 | 19 | |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.02 | 277 | 799 | 1034 | 1125 | 1434 | 1628 | 1928 | 1961 | 2229 | 2417 | 2694 | 2915 | 3132 | 3224 | 3862 | 3357 | 5004 | 4069 | | | | | | |
| 0.03 | 293 | 433 | 700 | 935 | 1154 | 1408 | 1486 | 1552 | 1750 | 1892 | 2131 | 2753 | 2666 | 3049 | 3564 | 3713 | 4021 | 3781 | | | | | | |
| 0.05 | | 637 | 966 | 1166 | 1496 | 1785 | 1962 | 2363 | 2477 | 2684 | 2970 | 3496 | 3724 | 4203 | 4926 | 4736 | 5218 | 5362 | | | | | | |
| 0.08 | | | 522 | 839 | 1123 | 1583 | 1745 | 1981 | 2305 | 2479 | 2706 | 3144 | 3464 | 3809 | 4316 | 5149 | 5821 | 6020 | 7399 | | | | | |
| 0.1 | | | | 629 | 889 | 1295 | 1867 | 2010 | 2045 | 2216 | 2444 | 2688 | 3195 | 3490 | 3728 | 5193 | 5167 | 5434 | 6371 | | | | | |
| 0.15 | | | | | | 1268 | 1610 | 1972 | 2192 | 2428 | 2653 | 3054 | 3344 | 3754 | 4218 | 4853 | 6091 | 6220 | 7200 | 6919 | | | | |
| 0.3 | | | | | | | | | | 1342 | 2321 | 2706 | 3184 | 3540 | 4118 | 5942 | 6051 | 7637 | 7367 | 8829 | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3 | | | | | | | | | | 1433 | 1580 | 1798 | 2342 | 2563 | 3341 | 4049 | 5239 | 6541 | 7221 | 8608 | | | | |
| 0.5 | | | | | | | | | | 1164 | 1385 | 1671 | 2152 | 2526 | 3200 | 3936 | 5210 | 5720 | 6145 | 7504 | | | | |
| 0.75 | | | | | | | | | | | | 1512 | 1858 | 2917 | 3087 | 4163 | 5040 | 6286 | 6485 | 7900 | 10,166 | 12,205 | 12,941 | 12,997 |
| 1 | | | | | | | | | | | | | | 2042 | 2806 | 3936 | 5125 | 6088 | 7617 | 8184 | 10,789 | 11,921 | 14,583 | 14,555 |
| 1.5 | | | | | | | | | | | | | | | 2585 | 4163 | 5040 | 5975 | 7447 | 8127 | 10,307 | 11,185 | 17,188 | 17,953 |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | | 2421 | 3625 | 4729 | 5380 | 6315 | 6853 | 8495 | 9656 | 11,610 | 13,507 |
| 2 | | | | | | | | | | | | | | | | 2670 | 3625 | 4332 | 4955 | 5805 | 7702 | 8297 | 10,194 | 11,468 |
| 3 | | | | | | | | | | | | | | | | | 4474 | 5862 | 6994 | 7815 | 10,449 | 11,751 | 13,875 | 15,772 |
| 4 | | | | | | | | | | | | | | | | | | 5210 | 6881 | 8099 | 11,270 | 13,224 | 15,688 | 18,491 |

Table 20 Utility Flow Full-Capacity LS200 Series DN 50 x 100 / 2 x 4 in. Body in SCFH at AC10 Accuracy

| OUTLET PRESSURE, psig | UTILITY FLOW CAPACITIES IN THOUSANDS OF SCFH AT 0.6 SPECIFIC GRAVITY NATURAL GAS AT AC10 FOR 2 X 4 IN. | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| | INLET PRESSURE, psig | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.7 | 1.5 | 2.2 | 2.9 | 4.4 | 5.8 | 7.3 | 8.7 | 10 | 11.6 | 14.5 | 18 | 22 | 29 | 44 | 58 | 73 | 87 | 102 | 145 | 174 | 232 | 276 | |
| TYPE LS200 | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.29 | 9.78 | 28.2 | 36.5 | 39.8 | 50.7 | 57.5 | 68.1 | 69.3 | 78.8 | 85.4 | 95.2 | 103 | 111 | 114 | 136 | 119 | 177 | 144 | | | | | | |
| 0.44 | 10.3 | 15.3 | 24.7 | 33.0 | 40.8 | 49.8 | 52.5 | 54.9 | 61.9 | 66.9 | 75.3 | 97.3 | 94 | 108 | 126 | 131 | 142 | 134 | | | | | | |
| 0.73 | | 22.5 | 34.1 | 41.2 | 52.9 | 63.1 | 69.3 | 83.5 | 87.5 | 94.8 | 105 | 124 | 132 | 149 | 174 | 167 | 184 | 189 | | | | | | |
| 1.16 | | 18.4 | 29.6 | 39.7 | 55.9 | 61.7 | 70.0 | 81.5 | 87.6 | 95.6 | 111 | 122 | 135 | 153 | 182 | 206 | 213 | 261 | | | | | | |
| 1.45 | | | 22.2 | 31.4 | 45.8 | 66.0 | 71.0 | 72.3 | 78.3 | 86.4 | 95.0 | 113 | 123 | 132 | 183 | 183 | 192 | 225 | | | | | | |
| 2.18 | | | | | 44.8 | 56.9 | 69.7 | 77.4 | 85.8 | 93.8 | 108 | 118 | 133 | 149 | 171 | 215 | 220 | 254 | 244 | | | | | |
| 4.35 | | | | | | | | | 47.4 | 82.0 | 95.6 | 113 | 125 | 146 | 210 | 214 | 270 | 260 | 312 | | | | | |
| TYPE LS220 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.35 | | | | | | | | | 50.6 | 55.8 | 63.5 | 82.7 | 90.5 | 118 | 143 | 185 | 231 | 255 | 304 | | | | | |
| 7 | | | | | | | | | 41.1 | 48.9 | 59 | 76 | 89.2 | 113 | 139 | 184 | 202 | 217 | 265 | | | | | |
| 11 | | | | | | | | | | | 53.4 | 65.6 | 103 | 109 | 147 | 178 | 222 | 229 | 279 | 359 | 431 | 457 | 459 | |
| 14.5 | | | | | | | | | | | | | 72.1 | 99.1 | 139 | 181 | 215 | 269 | 289 | 381 | 421 | 515 | 514 | |
| 22 | | | | | | | | | | | | | | 91.3 | 147 | 178 | 211 | 263 | 287 | 364 | 395 | 607 | 634 | |
| TYPE LS250 | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | 85.5 | 128 | 167 | 190 | 223 | 242 | 300 | 341 | 410 | 477 |
| 29 | | | | | | | | | | | | | | | | 94.3 | 128 | 153 | 175 | 205 | 272 | 293 | 360 | 405 |
| 44 | | | | | | | | | | | | | | | | | 158 | 207 | 247 | 276 | 369 | 415 | 490 | 557 |
| 58 | | | | | | | | | | | | | | | | | | 184 | 243 | 286 | 398 | 467 | 554 | 653 |

Outside North America Only

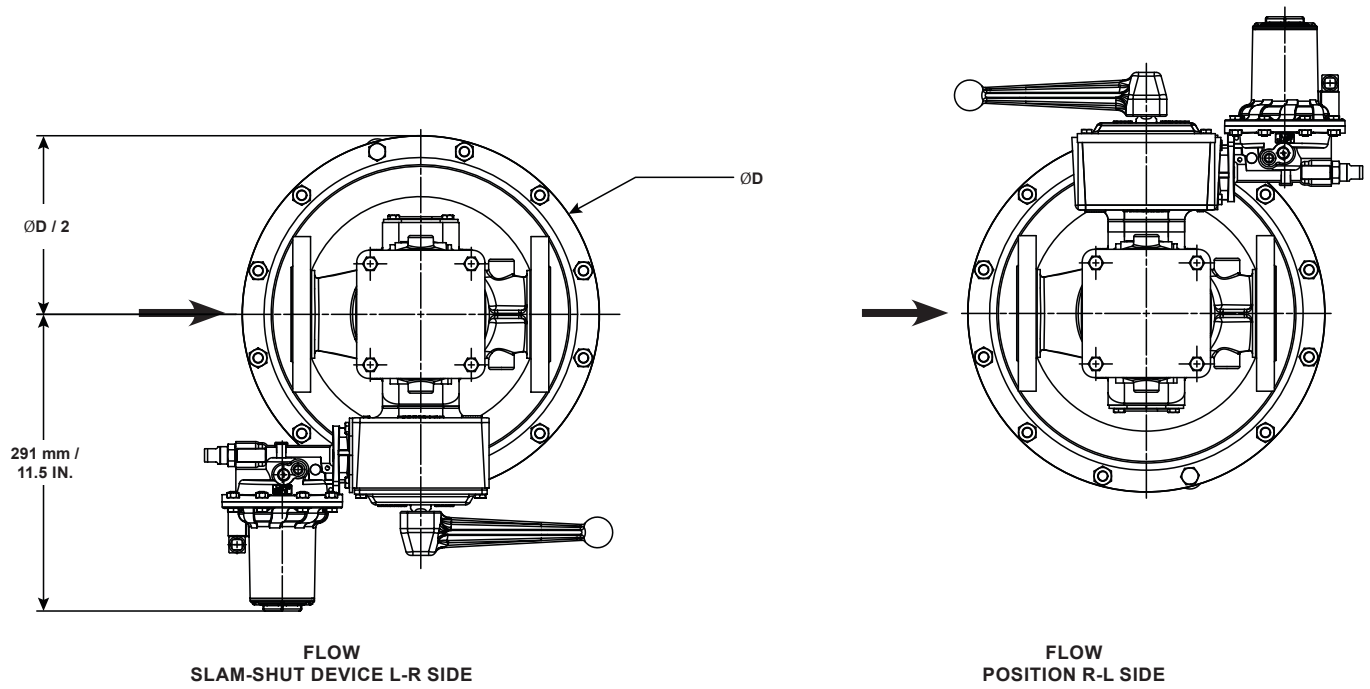


SLAM-SHUT DEVICE POSITIONS

Figure 3. LS200 Series with Slam-Shut Device Assembly Positions and Dimensions

Outside North America Only

LS200 Series



| TYPE | DIAMETER | |
|-------|----------|------|
| | mm | In. |
| LS200 | 475 | 18.7 |
| LS220 | 350 | 13.8 |
| LS250 | 255 | 10 |

Figure 3. LS200 Series with Slam-Shut Device Assembly Positions and Dimensions (continued)

Ordering Information

Use the Specifications section on page 2 and carefully review the description to the right of each specification. Use this information to complete the

Ordering Guide on the following page. Specify the desired selection wherever there is a choice to be made. Then send the Ordering Guide to your local Sales Office.

Ordering Guide

Actuator (Select One)

- Type LS200
- Type LS220
- Type LS250

Body Material and End Connection Style (Select One)

Ductile Iron

- PN16
- CL150 RF
- PN16 with expanded outlet
- CL150 RF with expanded outlet

Steel

- NPT
- PN16
- CL150 RF
- PN16 with expanded outlet
- CL150 RF with expanded outlet

Outlet Pressure Range (Select One)

Type LS200

- 0.017 to 0.022 bar / 0.25 to 0.32 psig, Light Blue
- 0.02 to 0.05 bar / 0.30 to 0.70 psig, Yellow
- 0.04 to 0.09 bar / 0.60 to 1.28 psig, Brown
- 0.08 to 0.15 bar / 1.10 to 2.24 psig, Dark Grey
- 0.14 to 0.35 bar / 2 to 5 psig, Pink

Type LS220

- 0.30 to 0.35 bar / 4.35 to 5.1 psig, Light Green
- 0.3 to 0.73 bar / 4.35 to 10.6 psig, Pink
- 0.33 to 1.08 bar / 4.8 to 15.7 psig, Dark Blue
- 0.57 to 1.5 bar / 8.3 to 21.75 psig, Orange

Type LS250

- 1.38 to 2.09 bar / 20 to 30.3 psig, Pink
- 1.38 to 3.09 bar / 20 to 44.8 psig, Dark Blue
- 1.72 to 4.14 bar / 25 to 60 psig, Orange

Trim, Percent of Full Capacity (Select One)

- 100% (standard)
- 78%
- 60%
- 40%

Elastomers

- Nitrile (NBR) (standard)

Slam-Shut Position (refer to Figure 3) (Select One)

- L-R
- R-L
- L-R with Field Conversion Option
- R-L with Field Conversion Option

LS200 Series

| Regulators Quick Order Guide | |
|---|--|
| *** | Readily Available for Shipment |
| ** | Allow Additional Time for Shipment |
| * | Special Order, Constructed from Non-Stocked Parts. Consult your local Sales Office for Availability. |
| Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction. | |

Specification Worksheet

Application:
 Specific Use _____
 Line Size _____
 Fluid Type _____
 Specific Gravity _____
 Temperature _____
 Does the Application Require Overpressure Protection?
 Yes No

Pressure:
 Maximum Inlet Pressure (P_{1max}) _____
 Minimum Inlet Pressure (P_{1min}) _____
 Downstream Pressure Setting(s) (P_2) _____
 Set Pressure _____
 Maximum Flow (Q_{max}) _____

Accuracy Requirements:
 Less Than or Equal To:
 5% 10% 20% 40%

Construction Material Requirements (if known):

Outside North America Only

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-  Fisher.com
-  LinkedIn.com/company/emerson-automation-solutions
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